

# Weekly Report

*Period: 06/03/2014 – 06/08/2014*

## Projects

### Research

This week, I was mainly working on the proposal of my Ph.D. thesis. As of now, the importance and the related work parts are done. I can finish the proposal text work next week.

In addition, I read a paper on visual movement analysis [1]. This paper inspires me a lot. In general, this paper takes the POI (point of interest) information from the web API into account for analyzing GPS trajectory dataset (See Figure 1). This paper just presented a very preliminary work. However, it might be the first effort to take other sources of dataset to assist movement data analysis. To some extent, it is a pioneering work on heterogeneous data analysis.

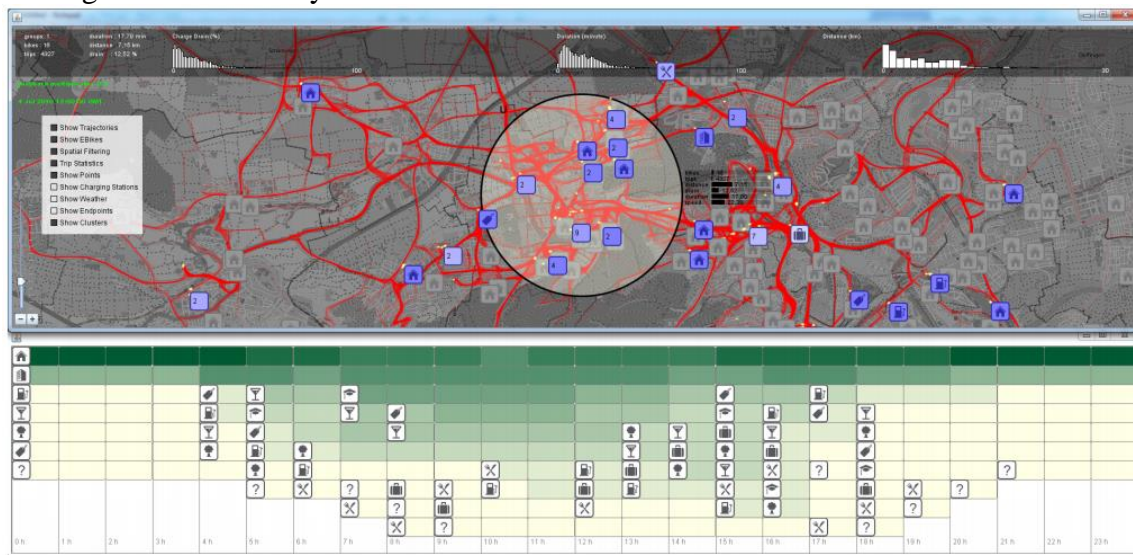


Figure 1 Incorporating POI information to assist movement analysis

Following are some directions that might need further research effort inspired by this paper:

- Incorporating POI information as additional semantics to study the taxi trajectory dataset. For example, we can use these information to explore the patterns of people taking taxi for work in the morning.
- Using POI information to study association rules of people taking taxi. For example, we can use the POI semantics to study the people's next movement after taking taxi to a specific location.
- Besides POI information, we can also use other type of semantic information such as the weather for movement data analysis.

## **Work to be done in next week**

- ◆ VAST paper revision
- ◆ The last part of my Ph.D. thesis proposal

## **Reference:**

- [1] Robert Krueger, Dennis Thom, and Thomas Ertl. Visual Analysis of Movement Behavior using Web Data for Context Enrichment. PVis 2014.